AN\ALQ-221 Advanced Defensive

WR-ALC/LXAE

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BAE Systems

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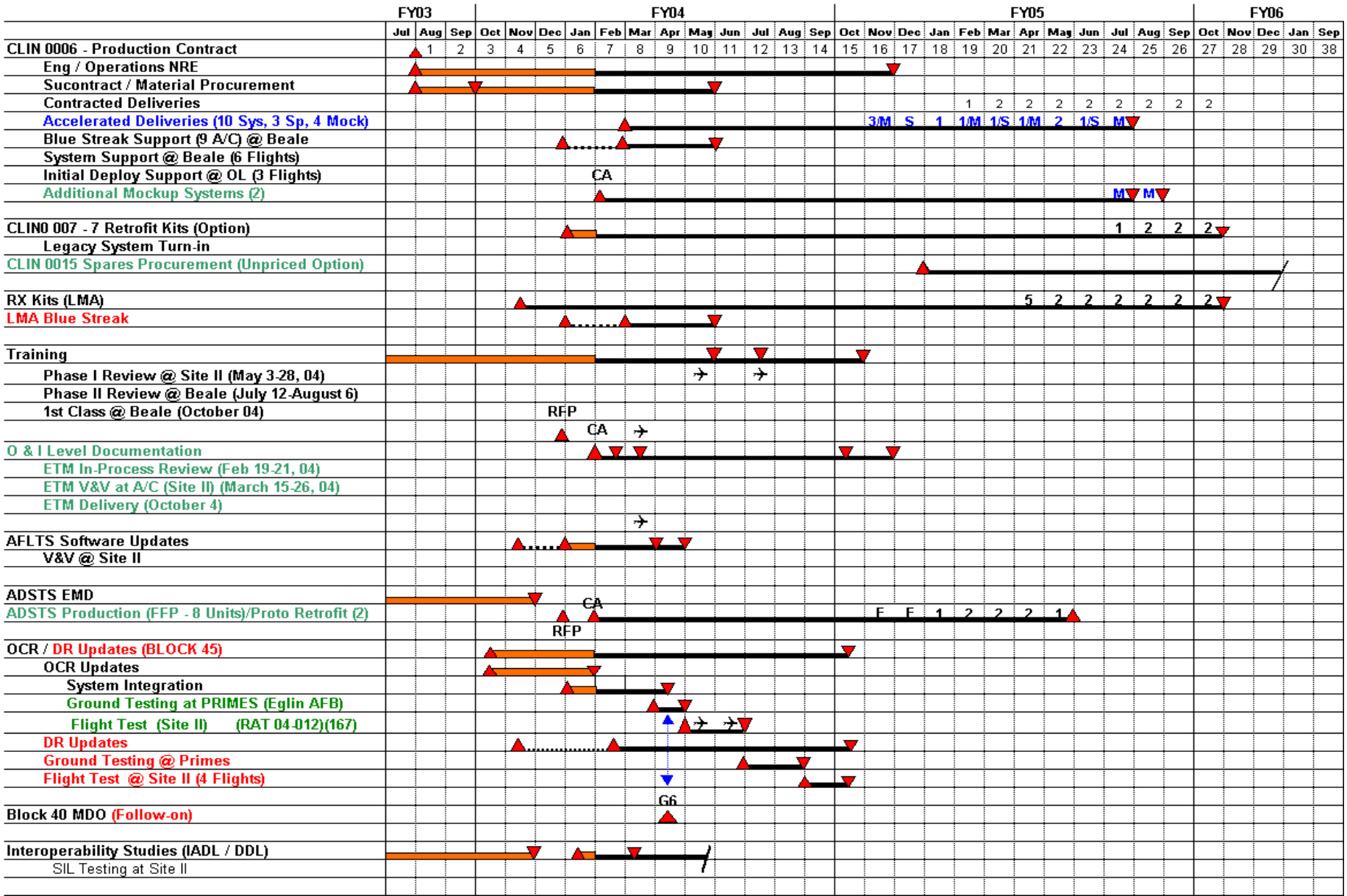
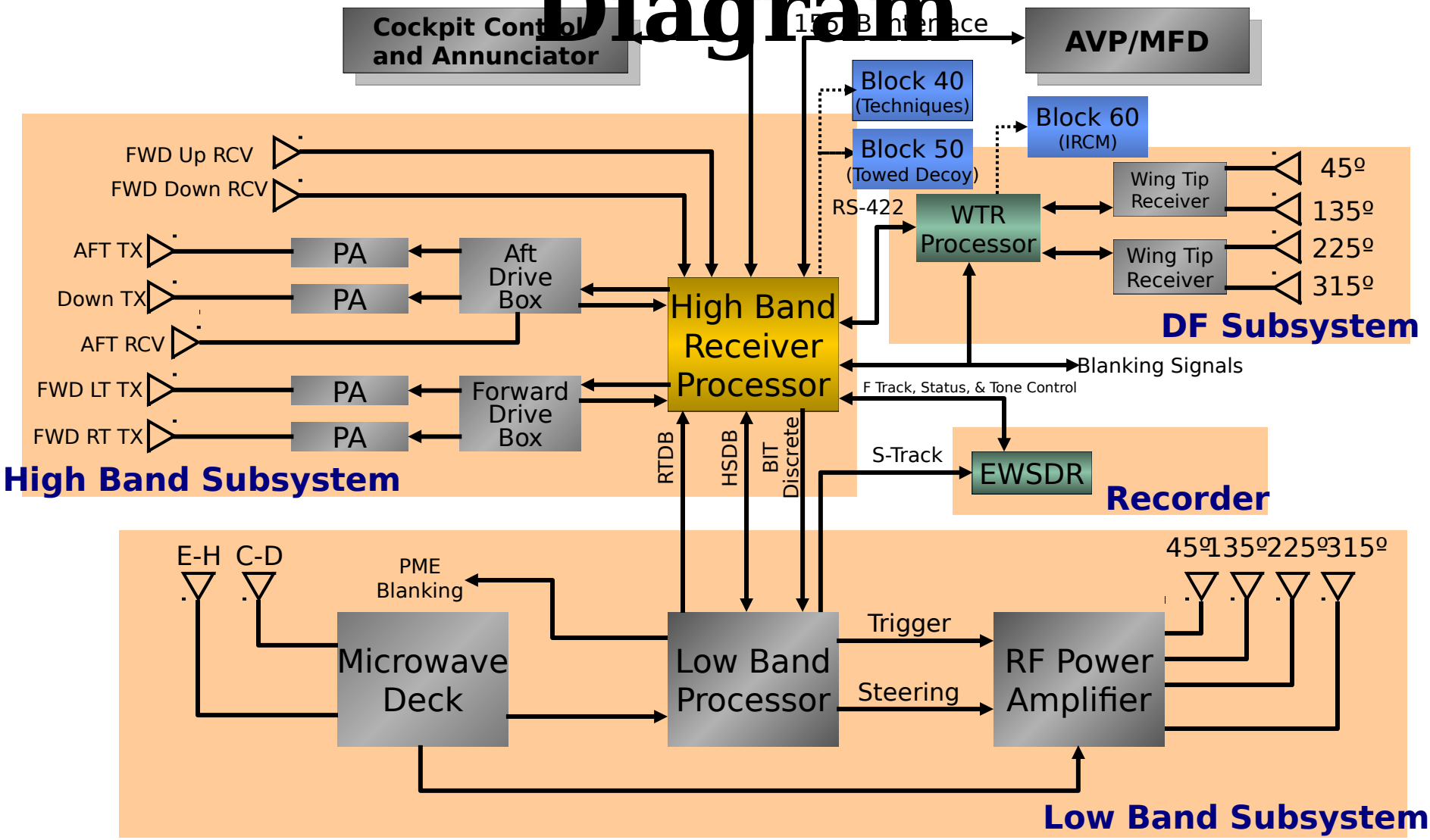
Overview

- Schedule
- ALQ-221 Block Diagram
- Interface Status
- Production
- Fielding Plan

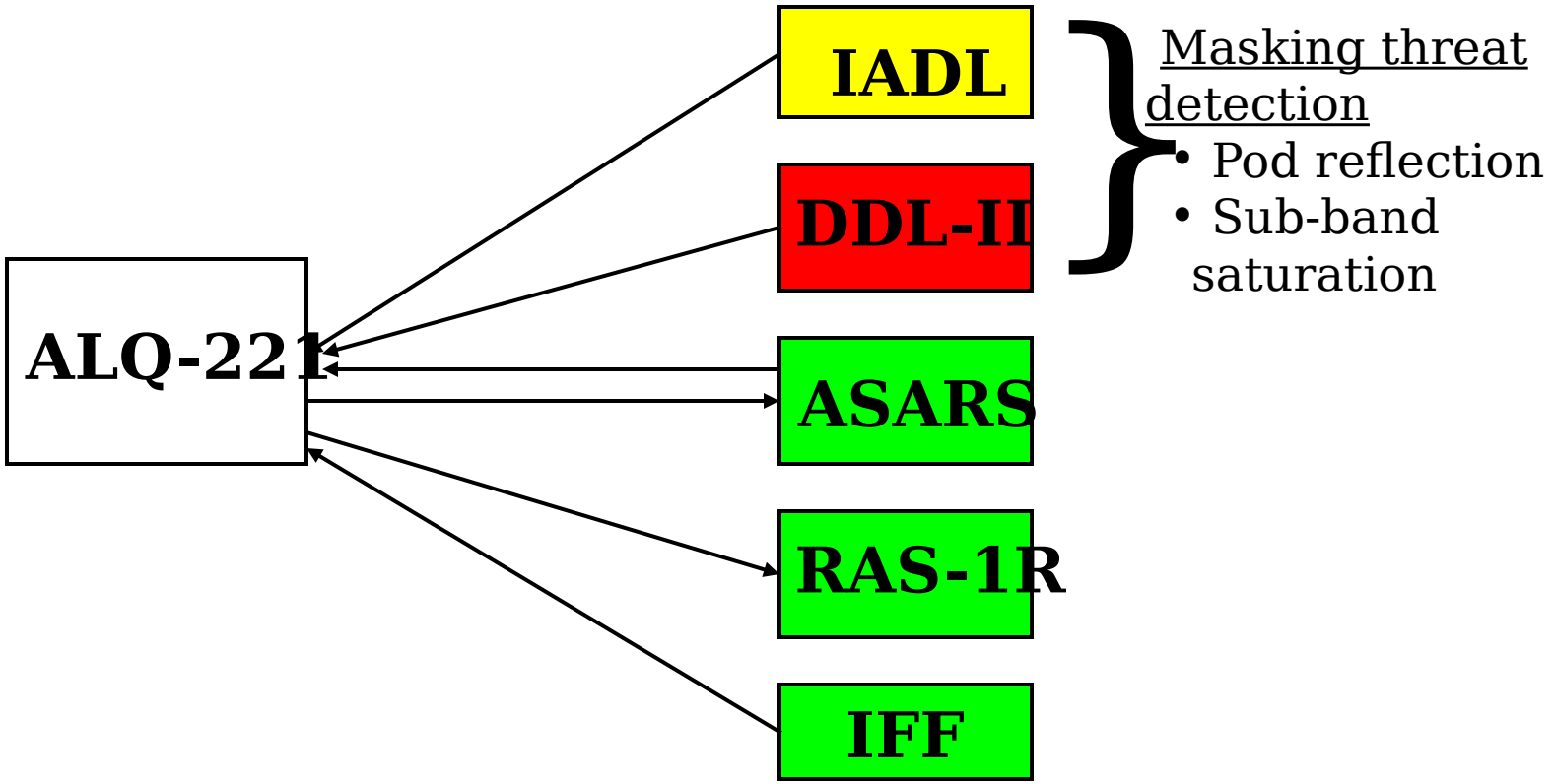
Schedule


FY03
FY04
FY05
FY06
Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Sep
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 38
CLIN 0006 - Production Contract
Eng / Operations NRE
Sucontract / Material Procurement
Contracted Deliveries
Accelerated Deliveries (10 Sys, 3 Sp, 4 Mock)
Blue Streak Support (9 A/C) @ Beale
System Support @ Beale (6 Flights)
Initial Deploy Support @ OL (3 Flights)
Additional Mockup Systems (2)
CLIN0 007 - 7 Retrofit Kits (Option)
Legacy System Turn-in
CLIN 0015 Spares Procurement (Unpriced Option)
RX Kits (LMA)
LMA Blue Streak
Training
Phase I Review @ Site II (May 3-28, 04)
Phase II Review @ Beale (July 12-August 6)
1st Class @ Beale (October 04)
O & I Level Documentation
ETM In-Process Review (Feb 19-21, 04)
ETM V&V at A/C (Site II) (March 15-26, 04)
ETM Delivery (October 4)
AFLTS Software Updates
V&V @ Site II
ADSTS EMD
ADSTS Production (FFP - 8 Units)/Proto Retrofit (2)
OCR / DR Updates (BLOCK 45)
OCR Updates
System Integration
Ground Testing at PRIMES (Eglin AFB)
Flight Test (Site II) (RAT 04-012)(167)
DR Updates
Ground Testing @ Primes
Flight Test @ Site II (4 Flights)
Block 40 MDO (Follow-on)
Interoperability Studies (IADL / DDL)
SIL Testing at Site II
CA
RFP
CA
RFP
CA
G6
3/M S 1 1/M 1/S 1/M 2 1/S M
M M
1 2 2 2
5 2 2 2 2 2 2
F F 1 2 2 2 1

ALQ-221 Block Diagram



INTERFACE STATUS



ALQ-221/Data Link Interference

- **Issue 1: ETP/DDL-II Ku-Band blocks 1 mode of 1 threat**

  Solution: ALQ-221 s/w patch has been identified to fix.
  - **Funding in place**
  - **Implementation in process**

- **Issue 2: DDL-II Dual ABIT & LOS mode blocks detection of 6 threats (X-Band Fwd)**

  Solution: DDL-II P3I Program will include a design mod to reduce impact

ALQ-221/Data Link Interference

- **<u>Issue 3</u>: IADL & DDL-II aft X-Band LOS mode interferes with detecting 6 threats**
  - **Superpod reflections**
  - **Fwd pointing angles**

Solution:

- **LM Aero Study Underway**
- **BAE Study**

ALQ-221/Data Link Interference

- **<u>Issue 3</u>: IADL & DDL-II aft X-Band LOS mode interferes with detecting 6 threats**

Solution:

- **LM Aero Study Underway**
  - **R-Card material to existing ALQ-221 fwd radome reduces interference.**
    - **Apr 04: Iron Bird measurements indicated 5 – 10 dB improvement**
    - **R-card on superpods is ineffective and not practical.**
  - **Testing in progress**
    - **Full Wave Modeling of modified Fwd Rcv Radome with R-card material**
      - » **Decision to fabricate modified FWD Rcv Antenna Housing prototype**
      - » **Measure on Iron Bird**
      - » **Measure at Rye Canyon**
- **BAE Study**
  - **ALQ-221 Band Reallocation mod in conjunction with L3 mod provides <u>full solution</u>**

Production

Support Equipment

- Advanced Defensive System Test Set (ADSTS) on contract
  - 10 Units
  - Delivery concurrent with ALQ-221 fielding
- RG1069 Scissor Lift
  - Requirement – 7 units
  - Awaiting ROM for 1st Article & production documentation

ALQ-221 Spares

- Procured in Parallel with Production

Production (Cont'd)

- Tech Data
  - BAE Systems
    - O-Level: ETM available to support Training & Fielding
    - Production Documentation and TCTOs in process
  - LM Aero
    - Flight & Maintenance Manuals
    - Test Plans & Procedures
    - TCTO for Group A Wiring

Production (Cont'd)

Training Schedule

- Beale Validation Effort (Phase I Review) - Completed
- Beale Verification Effort (Phase II Review)
  - In-Process
    - July 12 through August 13, 2004
- First Class Being Taught at Beale
    - October 4 through October 29, 2004

ALQ-221 Fielding Plan

- ACC requires AN/ALQ-221 to be fielded as a complete system (RX kit)
- Legacy system LRUs will be drawn from field prior to fielding AN/ALQ-221
  - First (3) turn-ins late Oct 04
    - 1 from Beale
    - 2 from Depot spares
  - Follow on turn-ins per ACCs draft Plan